



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,482	12/27/2005	Kenji Matsuda	053511	8378
38834 7590 12/17/2008 WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP 1250 CONNECTICUT AVENUE, NW SUITE 700 WASHINGTON, DC 20036				
EXAMINER				
WATTS, ALAN B				
ART UNIT		PAPER NUMBER		
3656				
MAIL DATE		DELIVERY MODE		
12/17/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/562,482

Applicant(s)

MATSUDA, KENJI

Examiner

ALAN B. WAITS

Art Unit

3656

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-6 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 27 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 2, 5 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Willford et al. USP 5566579.

Re clm 1:

- a shift arm (37, fig 8)
- a shift piece (22, fig 1), which is in contact with said shift arm
- said shift arm having heteromorphous cams (bottom of 37, fig 8) at a contacting part thereof (where 37 touches 22, fig 1)
- said cams are in contact with said shift piece
- a distance between said contacting part and a rotational axis of said shift arm varies (as the arm pivots the point of contact moves farther away from the center of rotation of the arm)

Re clm 2:

- Said leverage becomes smaller halfway through the operation (as the arm moves from a neutral position to an engaged position, the contact point moves farther out, and the leverage becomes smaller)

Re clm 5:

- Shift piece is provided with an approximately U shaped selector groove (22b,)
- Said contacting part of said shift arm is fitted in said selector groove (as shown in fig 1)

Re clm 6:

- Said shift arm is mounted on a shift selector shaft (31, fig 1)

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willford et al. USP 5566579 as applied to claim 1 above, and further in view of Jackson et al. USP 6467598.

Willford discloses all the claimed subject matter as described above.

Although Willford does indeed disclose:

Re clm 3:

- Manual transmission
- A plurality of speed-change gears

Re clm 4:

- Said heteromorphous cams have a compound arc figure which comprises a plurality of combined arcs having different curvature radii

Willford does not disclose:

Re clm 3:

- Said manual transmission comprising a synchromesh mechanism

Jackson teaches:

- A manual transmission comprising a synchromesh mechanism (c1 line 10-11)

for the purpose of reducing asynchronous meshing of the transmission gears and to prolong the life of the transmission.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Willford and provide:

- A manual transmission comprising a synchromesh mechanism

for the purpose of reducing asynchronous meshing of the transmission gears and to prolong the life of the transmission.

Response to Arguments

4. Applicant's arguments filed September 11, 2008 have been fully considered but they are not persuasive.

Applicant argues that the dictionary defines the term "heteromorphic". Applicant, however, uses the term "heteromorphous" in the claims. Applicants' Exhibit A defines this term as "having or composed of parts that differ in number or position". Willford does indeed disclose heteromorphous cams. Willford shows cams composed of parts that differ in position.

Applicant further argues "Willford does not have different cam profiles or radii (thus not heteromorphic)." Applicant is arguing limitations not in the claims. Nowhere in the claims are the terms "heteromorphic" or "profile". Furthermore, a single curved surface can be thought of as a plurality of combined arcs. Each arc (although having the same magnitude of radii) has its own distinct radius, and thus different from the other radii along the curve because it belongs only to that arc. Furthermore, there is a portion on Willford's cams where the radius switches from in the center of the shift finger to outside the shift finger (point of inflection).

Applicant further argues Willford's device does not function like that shown in fig 6. Applicant is arguing the functional language and the examiner notes while features of an apparatus may be recited either structurally or functionally, claims directed to >an< apparatus must be distinguished from the prior art in terms of structure rather than function. The reference discloses all the claimed structural limitations and therefore anticipates the claim. See MPEP 2114. Additionally, the apparatus is capable of performing the claimed functions.

Furthermore, the leverage of Willford device changes as it is moved. Leverage is a function of force and the distance of the force from the center of rotation. The contact point in Willford changes (as shown in figs 5 and 6), and thus, the leverage changes.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALAN B. WAITS whose telephone number is (571)270-3664. The examiner can normally be reached on Monday through Friday 7:30 am to 5 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alan B Waits/
Examiner, Art Unit 3656

/Richard WL Ridley/
Supervisory Patent Examiner, Art Unit 3656